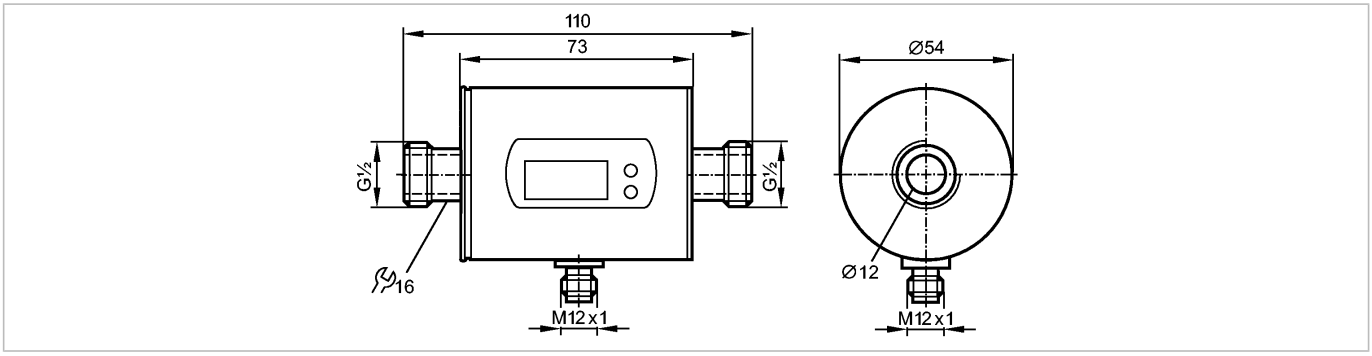
efector300

SM6001

SMR12GGXFRKG/US-100

Flow sensors



Product characteristics	
Magnetic-inductive flow meter	
Quick disconnect	
Process connection: G½ flat seal	
connection to pipe by means of an adapter	
Function programmable	
Totalizer function	
2 outputs OUT1 = flow monitoring (binary), flow rate meter (pulse), preset meter (binary) OUT2 = flow monitoring or temperature monitoring (analog or binary)	
Input for counter reset	
Measuring range	
0.03...6.604 gpm	

Application		
Application		Conductive liquids (conductivity:>= 20 µS/cm / viscosity: < 70 cSt at 104 °F)
Pressure rating	[psi]	232
Medium temperature	[°F]	14...158
Electrical data		
Electrical design		DC PNP/NPN
Operating voltage	[V]	19...30 DC; to EN 50178, SELV, PELV
Current consumption	[mA]	120
Insulation resistance	[MΩ]	> 100 (500 V DC)
Protection class		III
Reverse polarity protection		yes
Outputs		
Output function		OUT1: normally open / closed programmable or pulse OUT2: normally open / closed programmable or analog (4...20 mA / 0...10 V, scaleable)
Current rating	[mA]	2 x 200
Voltage drop	[V]	< 2
Short-circuit protection		yes (non-latching)
Overload protection		yes
Analog output		4...20 mA; 0...10 V
Max. load	[Ω]	500 (4...20 mA)
Min. load	[Ω]	2000 (0...10 V)
Pulse output		flow rate meter

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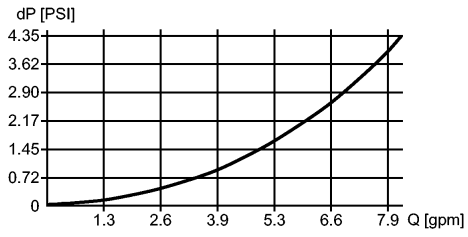
Measuring / setting range			
Flow monitoring			
Measuring range		0.030...6.604 gpm	1.5...396.3 gph
Display range		-7.925...7.925 gpm	-475.5...475.5 gph
Resolution		0.010 gpm	0.5 gph
Set point, SP		0.060...6.600 gpm	3.5...396.5 gph
Reset point, rP		0.030...6.570 gpm	1.5...394.0 gph
Analog start point, ASP		0.000...5.300 gpm	0.0...318.0 gph
Analog end point, AEP		1.300...6.600 gpm	78.0...396.0 gph
in steps of		0.010 gpm	0.5 gph
Volumetric flow quantity monitoring			
Pulse value		0.01...30 000 000 gal	
Pulse length	[s]	0.01...2	
Temperature monitoring			
Measuring range	[°F]	-4...176	
Resolution	[°F]	0.1	
Set point, SP	[°F]	-2.5...176.0	
Reset point, rP	[°F]	-3.5...175.0	
Analog start point, ASP	[°F]	-4.0...140.5	
Analog end point, AEP	[°F]	31.5...176.0	
in steps of	[°F]	0.5	
Accuracy / deviations			
Flow monitoring			
Accuracy		± (2% MW + 0.5% MEW)	
Repeatability		± 0.2% MEW	
Pressure loss (dP) / flow rate (Q)			
Temperature monitoring			
Accuracy	[K]	± 4.5 (Q > 0.26 gpm)	
Reaction times			
Power-on delay time	[s]	5	
Flow monitoring			
Start-up delay	[s]	0...50	
Response time	[s]	< 0.150 (dAP = 0)	
Damping, dAP	[s]	0.0...5.0	
Temperature monitoring			
Response time	[s]	T09 = 20 (Q > 0.26 gpm)	
Software / programming			
Programming options		hysteresis / window function; N.O. / N.C; output polarity; current / voltage / pulse output; start-up delay; display can be deactivated; display unit	

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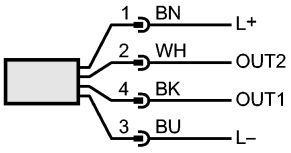
Flow sensors

Environment		
Ambient temperature	[°F]	14...140
Storage temperature	[°F]	-13...176
Protection		IP 67
Tests / approvals		
Pressure equipment directive		article 3, section 3 - sound engineering practice
EMC		EN 61000-4-2 ESD: 4 kV CD / 8 kV AD EN 61000-4-3 HF radiated: 10 V/m EN 61000-4-4 Burst: 2 kV EN 61000-4-5 Surge: 0.5 kV EN 61000-4-6 HF conducted: 10 V
Shock resistance		DIN IEC 68-2-27: 20 g (11 ms)
Vibration resistance		DIN IEC 68-2-6: 5 g (10...2000 Hz)
MTTF	[Years]	160
Mechanical data		
Process connection		G½ flat seal
Materials (wetted parts)		stainless steel 316L / 1.4404; PEEK (polyether ether ketone); FKM
Housing materials		stainless steel 316L / 1.4404; PBT-GF 20; PC; FKM; TPE
Weight	[kg]	0.495
Displays / operating elements		
Display		Display unit 6 x LED green (gpm, gph, gal, °F, 10^3, 1000 x 10^3) Switching status 2 x LED yellow Measured values 4-digit alphanumeric display Programming 4-digit alphanumeric display
Electrical connection		
Connection		M12 connector; gold-plated contacts

Wiring

Core colors

BK black
BN brown
BU blue
WH white



Colours to DIN EN 60947-5-2

OUT1: 3 selection options
switching output flow rate monitoring
pulse output quantity meter
signal output preset counter

OUT2: 5 selection options
switching output flow rate monitoring
switching output temperature monitoring
analogue output flow rate
analogue output temperature
Input for counter reset

Remarks		
Remarks		MW = measured value MEW = final value of the measuring range
Pack quantity	[piece]	1

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